UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8ENF-T

Mr. Richard Chuvarsky
Operations Manager
Arapahoe Generating Station
Public Service Company
2601 S. Platte River Drive
Denver, CO 80223

Re: Resource Conservation and Recovery Act (RCRA)
Inspection of Arapahoe Generating Station,
COD980285951

Dear Mr. Chuvarsky:

This letter serves to notify you that, at this time, the EPA has concluded the activities associated with the above referenced inspection. A copy of the inspection report is enclosed for your review. The Agency has determined that the Arapahoe Generating Station is in compliance with RCRA Small Quantity Generator (SQG) requirements.

Please be aware, however, that you are responsible for remaining in compliance with RCRA and other applicable Federal regulations relating to your activities, and that this letter does not constitute a bar to enforcement action as a result of conditions or information which the Agency is not presently aware of or has not yet fully considered; or conditions the Agency may find during future inspections of your facility.

If you have any questions about this letter or inspection report, please contact me at (303) 312-6503.

Sincerely,

Linda Jacobson

Linda Jacobson
Technical Enforcement Program

Enclosure

cc: Kathy Wahlberg, CDPHE

EPA NO. C51
FILE NO. Yrt 20

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8ENF-T

Mr. Richard Chuvarsky
Operations Manager
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2601 S. Platte River Drive
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Linda Jacobson

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Technical Enforcement Program

Enclosure

cc: Kathy Wahlberg, CDPHE

original file

U.S. EPA REGION VIII

RCRA COMPLIANCE INSPECTION REPORT

Facility:	Arapahoe Generating Station Public Service Company 2601 South Platte River Drive Denver, CO 80223 Denver County
Facility Contact:	Richard Chuvarsky, Operations Manager
Telephone Number:	(303) 937-5400
EPA I.D. No.:	COD980285951
Notification Status:	SQG
Inspection Type:	Compliance Evaluation Inspection
Date:	September 17, 1997
Time In:	10:05 a.m.
Time Out:	2:20 p.m.
Weather:	Overcast, cool
Inspector:	Linda Jacobson, EPA Philippe Pierre-Louis, EPA
Facility Representatives:	Richard Chuvarsky Operations Manager Darcy Berglund Plant Environmental Coordinator Bill Kerschner Facility Safety Specialist Nick Pizzuti Environmental Auditor

The EPA inspectors, Philippe Pierre-Louis and Linda Jacobson, arrived at the facility at 10:05 a.m. on September 17, 1997, and presented their credentials to Richard Chuvarsky, Operations Manager, and the other facility representatives present. Mr. Chuvarsky granted access by consent and initialed the Notice of Inspection (NOI) to indicate such.

Ms. Jacobson explained the intent of the inspection was to ascertain the facility's compliance with the RCRA requirements applicable to a Small Quantity Generator (SQG). Following a physical site inspection of the satellite accumulation areas and the waste generation points, Ms. Jacobson indicated that the inspectors would review the following records: manifests and other shipment records, training records, inspection records, and spill records. We were informed that we would need hard hat, steel-toed shoes and hearing protection in certain portions of the plant.

The Arapahoe Generating Station indicated that they are normally a conditionally exempt generator but that they occasionally fall into the SQG category. They file biennially with CDPHE as an SQG. Their waste streams include: waste paints from maintenance, dry cell batteries, Nessler's reagent, Safety-Kleen solvents, lead-contaminated debris, asbestos, and used oil. They explained that Nessler's reagent is a chemical used to determine hardness/softness of water that is recirculated. They also generate oily contaminated debris. They do not perform auto maintenance at this plant. They have satellite accumulation points for dry cell batteries, waste paints and Nessler's reagent. The rest of the waste that they generate is generated on a project-specific basis and is taken to the accumulation area.

When they do a clean up, Arapahoe puts out a barrel for oily rags or whatever. Arapahoe does a cleanup on an overall basis several times per year. They have sixteen coal mills that they overhaul once every eighteen months.

Light bulbs are disposed in the dumpsters. They have not received directions on how to manage light bulbs yet from the central office. We were informed that a Public Service Company Environmental Services representative was on the way to join us.

They have two Safety-Kleen machines that are changed every two to three months. The used oil is also picked up by Safety-Kleen; they used Mesa Oil prior to switching to Safety-Kleen.

They have approximately 90 employees at this location that work 3 shifts. Operations works 3 shifts. Maintenance and administration works 1 shift. The Emergency Coordinator is the Operations Team lead. They have one for each shift. If the

Operations Team lead is not on site, the Control Room operator acts as the Emergency Coordinator.

The General Compliance Training Program is conducted yearly. Bill Kerchner has employee training rosters. Everyone has to take this training.

The Spill Kit is located at the satellite accumulation area: oil booms and pads are located in the warehouse. Fire extinguishers are located throughout the plant. Arapahoe indicated that they have a list of the fire extinguishers, which the inspectors indicated that they would need to verify.

At the waste accumulation area, Ms. Berglund indicated that her name and phone number is posted along with an alternate. Employees call the Control Room in the event of an emergency or a spill. Ms. Berglund indicated that she would also get us a copy of the spill records.

Nick Pizzuti, Public Service Company Environmental Auditor, joined us. We then conducted the physical inspection of the Arapahoe Generating Station.

PHYSICAL SITE INSPECTION

We inspected one of the satellite accumulation points at which 2 drums were located: 1 black drum, labeled "Oily Debris" and 1 blue drum, labeled "Satellite Dry Cell Batteries". We were told that the wastes were generated throughout this area and that the oily debris consisted largely of rags. The inspectors looked in the two drums. The Oily Debris drum was empty. The battery drum contained only flashlight batteries. On both of these drums, the lids were in place but not secured.

We next observed one drum of crushed fluorescent light bulbs. We were told that the electricians take care of this drum and that Ms. Berglund was not sure how often the electricians fill and empty this drum. This was a black steel drum with a green tube on top. Darryel Devine, an electrician, was asked to discuss this drum with us. Mr. Devine indicated that he dumped the fluorescent bulb barrel every 2 to 3 months. He sticks the light bulb into the tube, which has a chain in the tube on a motor. Only the tube-kind of bulbs are crushed. The other type of light bulbs go straight to the dumpster.

We next observed the satellite accumulation point for the Nessler's Reagent. There was one 55-gallon black drum labeled "Nessler's Reagent Only", "Hazardous Waste". The plant chemist generates this wastestream. The chemist was testing the plant water next to the drum at his lab bench. The inspectors requested a copy of the MS/DS sheet for the Nessler's reagent.

We noted the presence of a Fire Blanket, Fire Extinguisher and Eye Wash in this area.

We were shown the dry cell batteries (non haz) collection bucket at the tool crib. They also have one Safety-Kleen unit at the maintenance shop, a 32-gallon capacity parts washer. There was also one blue plastic drum, labeled "Waste Aerosol Paint Cans" inside the maintenance shop. Two of the aerosol cans in this drum were CRC Heavy Duty Degreaser (TCE active ingredient). These cans were empty when sprayed by Mr. Pizzuti. This drum is used as a collection area. The Denver County Fire Department had them relocate the aerosol puncture device to the hazardous waste accumulation building. Aerosol cans are punctured and thrown away.

Outside the Maintenance Shop by the hopper, we saw one black 55-gallon drum labeled, "Used Citrus Solvent Contaminated with Oil". Ms. Berglund was unsure what the source of this was but it was believed to be used by the maintenance crew.

We inspected the storage of used oil, which is shipped off as an off-spec fuel. This oil is sent to Safety-Kleen. There were three black drums, only 1 of 3 was labeled as "Used Oil". There was also a green tank, labeled "Waste Oil" rather than "Used Oil". The green tank is 350 gallon capacity.

We were then shown the "empty barrel storage" which consisted of eight drums on pallets as follows:

2 black, 1 blue on 1 pallet
2 black, 1 blue on 2nd pallet
1 black, 1 white on 3rd pallet

These drums were labeled as follows:

1. 1 white drum SWEPCO306 Supreme Formula Engine Oil
2. 1 blue drum Antifreeze Water sampled 2/7/96, R110296009, antifreeze water--sample and use on coal belts at other plants to deice coal belts in winter time.
3. Waste Antifreeze, black drum, R100194001
4. Waste Antifreeze, blue drum, R11-0194-001
5. CBC Drip #7, UN1864
6. Used Antifreeze, R110296011
7. 1 black drum, 0928405, Midwest Ind. Supply
8. Waste Antifreeze, no number, black drum

Bill Graybeal, Plant Senior Chemist, joined us and tried to identify some of the above drums and verify the contents. He stated that the waste barrels are sent to Arapahoe from 7th Avenue. Arapahoe reuses antifreeze for deicing of the coal conveyor belts. The antifreeze is sampled at the Lipan Garage for RCRA characteristics then sent here if nonhazardous for deicing of the coal belts in winter.

None of the facility representatives were sure of the source of the red and white drum--SWEP CO and Midwest Ind. Supply. The facility representatives identified the Midwest Ind. Supply as dust suppressant, "Road Dust Binder", which is applied to soil with water. The coal crew determines if this material is still usable. Ms. Berglund will confirm the contents of this drum.

We next inspected the accumulation building. They have Building 37 labeled as "Hazardous and Nonhazardous Waste Accumulation Area In Case of Emergency Contact Darcy Berglund 937-5424 Bill Graybeal 937-5463 After Hours Call 937-5420 or 7-211." The number 7-211 is the code call system to go to the control room.

The waste is brought to the accumulation building from the satellite accumulation areas. The waste accumulation building was segregated into the following waste types:

1) asbestos
2) waste paint
3) waste Hg
4) Misc. Waste
5) Oily Rags and Debris
6) Dry Cell Batteries

In the waste accumulation building were the following wastes:

1) Waste Paint Satellite Drum, is aerosol can puncture device, with hazardous waste label
2) 1 black drum, Haz. Waste Label, "Lead Debris", Accum. Date 8/7/97--contains lead material and expendable protective gear
3) Oily Rags and Debris Area: 1 waste oil with diesel, labeled "Waste Oil and Diesel Mix", 8/97,Sampled 9/15/97 and one black 55-gallon drum labeled "Floor Dry Absorb-All/Oil/Antifreeze", sampled 9/10/97
4) 2 one- gallon cans labeled "Foremost 1195 Stripper and Rust Remover", 1 one-gallon can labeled "Steelcote Zinc Rich Zinc Dust Powder", one five-gallon can labeled "Koppers Bitumastic No. 50" (coal tar). Arapahoe will characterize these and may dispose as hazardous.

The inspectors noted that there were shovels, a spill kit and a fire extinguisher in the accumulation building. There was no door on the accumulation building. There was a 12-inch berm except for ramping at the door opening.

The lead waste is generated from old paint. Arapahoe has a special lead abatement kit. There is no waste mercury either in storage or currently being generated.

We next inspected Building 21 which contained dirty filters. There were two green drums labeled "Used Oil Filters Drums",

taken by Safety-Kleen. One of the two drums was empty. The facility representatives were not sure how the air filters, also present in this building, are being managed.

We then looked at the TVS Tool and Vacuum Paint Removal Device. This sucks lead dust into vacuum cleaner type container, which is emptied after each use into an accumulation drum. There is no storage in this machine. The welders and welder helpers are trained to use this for lead abatement projects.

We saw the second Safety-Kleen machine. We were shown the bead blast unit in maintenance the shop. The bead blaster is periodically cleaned out, dust analyzed, and disposed.

Records Review

After the site tour, the inspectors reviewed the inspection records, the manifests/LDR, used oil shipment records, training records and the spill records.

There were two used oil shipments. One shipment was picked up by Approved Oil, 247 gallons on April 16, 1997. The second shipment of 300 gallons was picked up by Safety-Kleen on June 26, 1997. Public Service screens its used oil for PCBs and total halogens. These are analyzed in-house by Public Service.

The 1996 Waste Shipment records consisted of the following:

1/9/96	31 gal	Safety-Kleen
3/1/96	61 gal	Safety-Kleen
4/22/96	30 gal	Safety-Kleen
6/17/96	30 gal	Safety-Kleen
8/12/96	31 gal	Safety-Kleen
9/24/96	55 gal	Clean Harbors
	(Waste paint related material)	
10/11/96	52 gal	Safety-Kleen
11/25/96	453 lb.	Oil and Solvent Process Co.
	(Nessler's Reagent and Water, D002, D009)	
11/26/96	32 gal.	Safety-Kleen

The 1997 Waste Activity consisted of the following:

1/97 12 lb. Nesslers
505 lb. Safety-Kleen
2/97 12 lb Nesslers
3/97 12 lb Nesslers
253 lb Safety-Kleen
4/97 12 lb Nesslers
52 lb lead debris

5/97 12 lb. Nesslers
95 lb. Safety-Kleen
6/97 12 lb Nesslers
7/97 12 lb Nesslers
253 lb Safety-Kleen
26 lb Lead Debris
8/97 12 lb Nesslers
10 lb lead debris
9/97 32 gal Safety-Kleen

Arapahoe explained that its oily rags contain only oil, no halogenated solvents. A citrus solvent is used as the solvent. Orange peel solvent is used to clean the bearings, grids, etc.. The oily rags are sent to CSI.

Mr. Pierre-Louis reviewed the training records and training materials. Training was conducted on August 28 and 29, 1997. The training topics included:

1. Asbestos Awareness
2. Confined Space
3. Fall Protection
4. First Aid
5. Haz. Com
6. Haz Woper, 1st Responder Awareness
7. Lead Awareness
8. Scaffolding Safety Awareness
9. RCRA
10. Stormwater
11. Respiratory Protection

CLOSING CONFERENCE

At the closing conference, the following concerns were discussed:

1) the disposal of light bulbs into the dumpster. A hazardous waste determination is necessary.

The facility responded that a draft management plan for fluorescent light bulbs is being developed. In the interim, Arapahoe plans to put light bulbs in the original carton, ship to the main distribution center and then recycle. Arapahoe has not done an analytical check on the light bulbs at this plant and bulbs from the accumulation drum which the inspectors observed. The facility indicated that they cannot rely on purchase records for waste characterization. Arapahoe cannot say the bulbs are non-hazardous based on this. Arapahoe will halt putting bulbs in dumpster until PSC has a bulb management plan with EPA and CDPHE input.

2) 1 black 55-gallon drum labeled "Used Citrus Solvent Contaminated with Oil". A hazardous waste determination is necessary.

The facility agreed to make this determination. The inspectors instructed Arapahoe to use either analysis or generator knowledge, as appropriate.

3) hazardous waste determination on the following drums from the 8 drums on the pallets:
   a) CBC Drip # 7, UN 1864
   b) black drum, Midwest Ind. Supply No. 0928405, Road Dust Binder (used)

The facility agreed to make this determination. The inspectors instructed Arapahoe to use either analysis or generator knowledge, as appropriate.

4) label used oil containers with the words "Used Oil"

The facility responded that labels would be placed on the containers today.

5) determine how used air filters are managed.

The facility responded that the air filters are sent out, cleaned, and returned to the plant for reuse.

6) Good Housekeeping practice to have a door on the waste accumulation building to prevent excess precipitation. ponding.

The facility responded that precipitation is not a problem. Also, they indicated that they do not store or generate water reactive materials.

7) ensure that, as required for a SQG, the following are posted by a telephone: the Emergency Coordinator name and phone number, the location of fire extinguishers and spill control materials, location of fire alarm (if appropriate), and the Fire Department number.

The inspectors went to the Control Room and checked the Plant Emergency Plan, which is located in both control rooms and the shift supervisor's office. The inspectors noted posting by the phone of the Shift Unit Managers and their home and pager numbers, the Fire Department and Police phone numbers, the Safety Adviser, and Medical Assistance.

Ms. Jacobson completed the Notice of Inspection form. The following information was requested to be provided within thirty calendar days:

1) hazardous waste determination on the 55-gallon, black drum, labeled "Citrus Solvent Contaminated with Oil"
2) hazardous waste determination on the 55-gallon drum labeled "CDB Drip # 7, UN 1864"

3) hazardous waste determination on the 55-gallon, black drum labeled "Midwest Ind. Supply, No. 0928405, Road Dust Binder"

Arapahoe Station was informed that the inspection report would be ready in 45 days and that they would be provided a copy of the report and photos. Ms. Jacobson noted that there were no violations pending in-office review and receipt of the requested information.

SUMMARY OF FINDINGS/CONCLUSIONS

Based on information provided during this inspection, Arapahoe Generating Station is a SQG of hazardous waste. All manifests, LDR paperwork, spill records, and training records were properly maintained, completed, and available for review. Information required by the NOI was provided in a letter of October 1, 1997 from Darcy Berglund to Linda Jacobson, EPA. This submittal supplied the requested information and satisfied the items on the NOI. The following were determined: the drums were found to be usable material which was not yet a solid waste and thus nonhazardous. A used oil label had been placed on the green tank. Following receipt of this information and in-office review of the inspection findings, it was determined that Arapahoe Generating Station is in compliance with the RCRA SQG requirements.

Sixteen photos were taken, but due to camera malfunction, only two were able to be developed.

Prepared by: Linda Jacobson 10/29/97
Linda Jacobson Date
EPA Inspector

Reviewed by: 10/29/97
Philippe Hierre-Louis Date
EPA Inspector

Photo Log

Photo 1: inside battery drum
Photo 2: drum where fluorescent bulbs are being crushed. Black steel drum with green tube on top.

Sixteen photos were taken but due to camera malfunction only 2 developed.

PUBLIC SRVICE COMPANY OF COLORADO

ARAPAHOE STATION

EPA ID No.: **COD980285951**

Hazardous Waste Activity Report

DATE: 1/1/97 to 12/31/97

Instructions: Please enter the total weight (in pounds) of hazardous waste generated at Arapahoe for each month of the above mentioned year. This generated waste will include Nesslers reagent waste, Lead debris (paint chips,etc..) Safety-Kleen solvent waste and any other hazardous waste.

JANUARY	~12P Nesslers 505P Safety Kleen ~12P Nesslers	JULY	~12P Nesslers 253P Safety Kleen 26P Lead Debris ~12P Nesslers
FEBRUARY		AUGUST	10P Lead Debris
MARCH	~12P Nesslers 253P Safety Kleen ~12P Nesslers	SEPTEMBER	~~Safety Kleen~~ 32g
APRIL	52P Lead Debris ~12P Nesslers	OCTOBER	
MAY	95P Safety Kleen ~12P Nesslers	NOVEMBER	
JUNE		DECEMBER	

NEW CENTURY ENERGIES

PUBLIC SERVICE COMPANY OF COLORADO

SOUTHWESTERN PUBLIC SERVICE COMPANY

CHEYENNE LIGHT FUEL & POWER

Environmental Services Department
PO Box 840
Denver, Colorado 80202-0840
Fax 303.571.7880

September 8, 1997

Ms. Carla Lenkey
Water Quality Protection Section
Water Quality Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80222-1530

RE: PSC Arapahoe Station Sulfuric Acid Release - CDPS Permit No. CO-0001091

Dear Ms. Lenkey:

This letter serves to follow-up the September 3, 1997 verbal notification to you regarding the September 1, 1997 sulfuric acid release at the Public Service Company of Colorado (PSC) Arapahoe Station. The release did not result in the exceedance of any effluent limitations set forth in the Colorado Discharge Permit System (CDPS) Permit No. CO-0001091. A description of this event follows.

On September 1, 1997 at approximately 10:00 a.m., an estimated 200 gallons of sulfuric acid was released from a small hole in the transfer piping associated with the sulfuric acid tank. Upon detection of the release, the acid system was shut down and clean-up was initiated. The acid that was released was confined to the surrounding soil and an enclosed sump that contained approximately 800 gallons of water. The acid released onto the soil was neutralized with soda ash and a contractor was called to neutralize the acid contained in the sump. The pH of the water and acid contained in the sump was 1.59.

Due to the Labor Day holiday, the contractor did not arrive on-site until 4:20 p.m. whereupon the acid and water in the sump was neutralized with soda ash to a pH of 8.6. The neutralized water in the sump (which is recharged with plant circulating water) was pumped into a tanker. The pH of the plant circulating water was 8.3. Approximately 5500 gallons of water and neutralized sulfuric acid was pumped into the tanker suggesting that the sump was continually recharging during pumping. Pumping was discontinued at this point and the neutralized water was emptied into the recently dredged east end of the north ash pond at the site. The north ash pond did not contain any water at this time. Overflow from the north and south ash ponds (if full of water) could travel to the emergency ash pond or the polishing pond leading to discharge point 001, but this is very rare due to the size of the ponds and the continual dredging of the ash ponds as they fill.

There was no flow from discharge point 001 on September 1, 1997. The pH taken twice per shift (three shifts) on September 2, 1997 revealed a pH ranging from 7.2 to 8.1 throughout the day.

Arapahoe Station personnel have indicated that any future disposal of neutralized acid from this sump will be hauled off site and disposed in an industrial landfill. Station personnel will be trained on the off site handling of neutralized acid to ensure that this situation does not occur again.

Please feel free to contact me at 571-7440 with any questions in this regard.

Sincerely,

Eldon Lindt

Eldon Lindt
Team Lead, Air and Water Programs

cc: Plunk/Metcalf - Env. Services
Chuvarsky/Berglund - Arapahoe Station

not reportable quantity

PUBLIC SERVICE COMPANY OF COLORADO
OIL SPILL/CHEMICAL RELEASE REPORT

Please complete form, attach all test results and submit a copy to Environmental Services. Also attach any additional information, drawings or diagrams, including spill boundaries.

Name: John Thompson Signature: John Thompson

Time/date of release: May 5, 1995 13:15

Your location/phone #: Arapahoe Station 937-5462

Time/date of phone report to Environmental Services: 5/5/95 14:00

CO EQUIPMENT #_____

Exact location of release: (please include facility name or address where release occurred) Arapahoe Station, 2601 S. Platte River drive, Denver CO
River inlet pump Suction pit

Type of material released: lubricating oil Quantity: 1/2 - 3/4 gal.

Weather Conditions: Sunny, mild

What caused the release: (please provide a detailed description of what happened) Juveniles entered the enclosure and apparently emptied the oil can into the pump suction pit from grating above.

Did release get into the soil, air, water or sewers: (if so, please provide a detailed description of where) The oil was contained in the pump suction pit. No oil entered the river.

Any actions taken to contain release: (by whom, when and how) Stephen Evans placed oil absorbent pads in the sump pit imediately after the event. John Thompson placed an oil absorbent boom across the inlet to the river ≈ 20 minutes after the spill.

Any injuries to employees or public: (list names and injuries) None

Any damage to public or private property: None

Estimated manpower hours for cleanup: 4 hours containment & cleanup

Estimated cost for cleanup: $125.00

Amount of waste generated during cleanup: ≈24 pads & 1 boom

HAZARDOUS WASTE ACCUMULATION AREA INSPECTION LOG

Location: _____

✔ Pass
O Fail

Inspection Item / Date	Barricades	Aisle Space	Drums On Pallets	Storage Times	Warning Signs	Emergency Equipment	Secondary Containm't	Containers Closed	Containers Labelled	Container Condition	No Spills or Leaks	No Haz. W. Out of S/A	COMMENTS	CORRECTIVE ACTION	SIGNATURE (Print Name/ Initial)
4/28/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG Bill Gaylord
5/6/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
5/12/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
5/20/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
5/28/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/2/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/9/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/17/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/23/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/2/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/8/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/14/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/21/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
8/4/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
8/12/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Needs Swept		BG
8/19/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG

HAZARDOUS WASTE ACCUMULATION AREA INSPECTION LOG

Location: [illegible]

✓ Pass
O Fail

Inspection Item / Date	Barricades	Aisle Space	Drums On Pallets	Storage Times	Warning Signs	Emergency Equipment	Secondary Containm't	Containers Closed	Containers Labelled	Container Condition	No Spills or Leaks	No Haz. W. Out of S/A	COMMENTS	CORRECTIVE ACTION	SIGNATURE (Print Name/ Initial)
8/25/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	[illegible]	Swepted Area	BG
9/5/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		~~Sampled~~ Chge Name + HAZ Area	DB
9/12/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Sampled 9-10-97 [illegible] Identifiers	DB

U.S. ENVIRONMENTAL PROTECTION AGENCY (REGION VIII)
999 18th St. Suite 500, Denver, CO 80202-2413

NOTICE OF INSPECTION

PROGRAM

✓ Resource Conservation and Recovery Act (RCRA) Public Law 94-580, as amended.
___ Toxic Substances Control Act (TSCA) Public Law 94-469, as amended.
___ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Public Law 92-516, as amended.

Date	Inspector #	Daily Seq.	Hour IN: 10:05 OUT: 2:20pm	CMO Fac.	Facility name	EPA I.D. #
9/17/97					Public Service Co. Arapahoe Generating Station	COD980259751

Fac. Func.	Invest. Type	FATES Reason	RCRA: Gen. (2) Transp. ( ) TSD ( )	Street
Power Plant				2601 S. Platte River Dr.

Facility Representative(s)	Title	City	State	Zip
Richard Chuvarsky	Operations Mgr.	Denver	CO	80223
Phone # (303)-(937-5400				

Reason for Inspection: Entry by Consent: (Y) Verbal Warrant: ( )
✓ To determine the extent of compliance with the above referenced law, which may require the collection of samples, documents, and/or photographs.
___ Other (Specify) ___
Violations of above referenced law are suspected from information or complaint. Yes ( ) No ( )

Samples, Documents, and/or Photos collected (describe below)	Medium	Date to Lab
1. ~16 photos		
2. 1 sheet – Haz. Waste Activity Rept. (Waste Gen. 1997)		
3. 2 sheets inspection logs		
4. 1 sheet oil spill report		
5. 1 letter, 9/8/97 to CDPHE, re: sulfuric acid spill		
6.		

Samples requested and received by facility: ( ) Yes ( ) No
If yes: ( ) Duplicate. ( ) Split. ( ) Photos (To be received when processed.)

~~This inspection has revealed the following probable violations of EPA laws or regulations:~~ Request haz. waste determination on following: (w/i 30 calendar days)
1) 55, black drum, labeled "Citrus Solvent Contaminated with Used Oil"
2) 1 black drum, "CBC Drip #7, UN 1864"
3) Black Drum, Midwest Ind. Supply, No. 092 8405, Road Dust Binder
Verify SQG Posting / No Violations Pending In Office Review but "Used Oil" Labeling.

The facts established by this inspection will be reviewed by personnel in the EPA Regional Office.
A final determination of your facility's compliance with EPA regulations will be made as a result of this review.
The review may reveal additional violations.

Receipt of this Notice of Inspection is acknowledged.

(Signature of facility representative)

Signature of Lead Inspector

Assisting Inspectors (EPA/Contr./State)

R8EPA Form 3540-2(9-90)

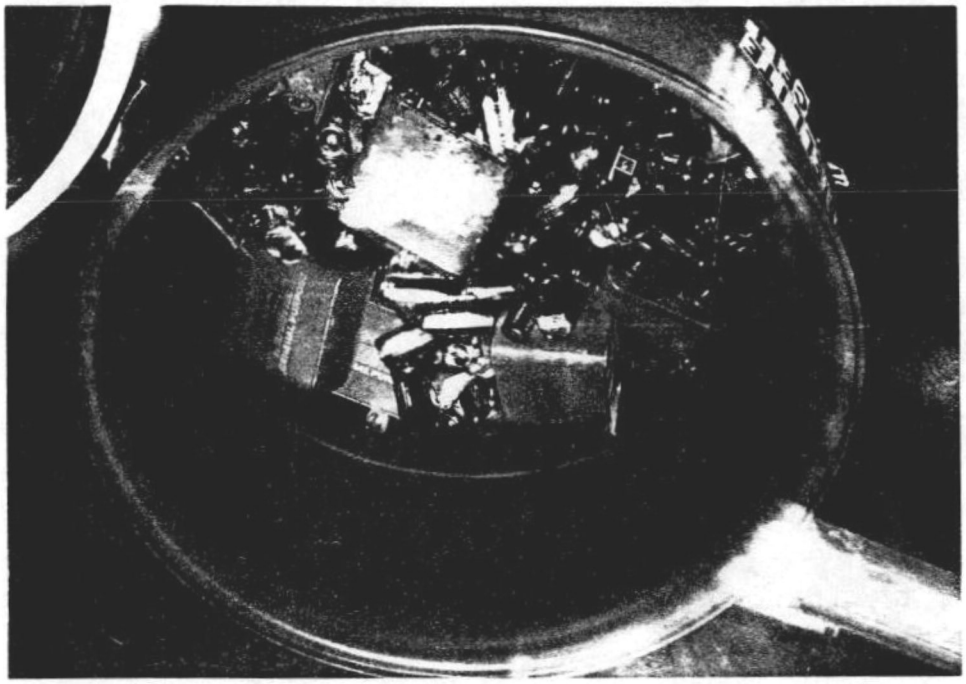

Photo 1: Satellite Accumulation Drum
Batteries Inside Drum

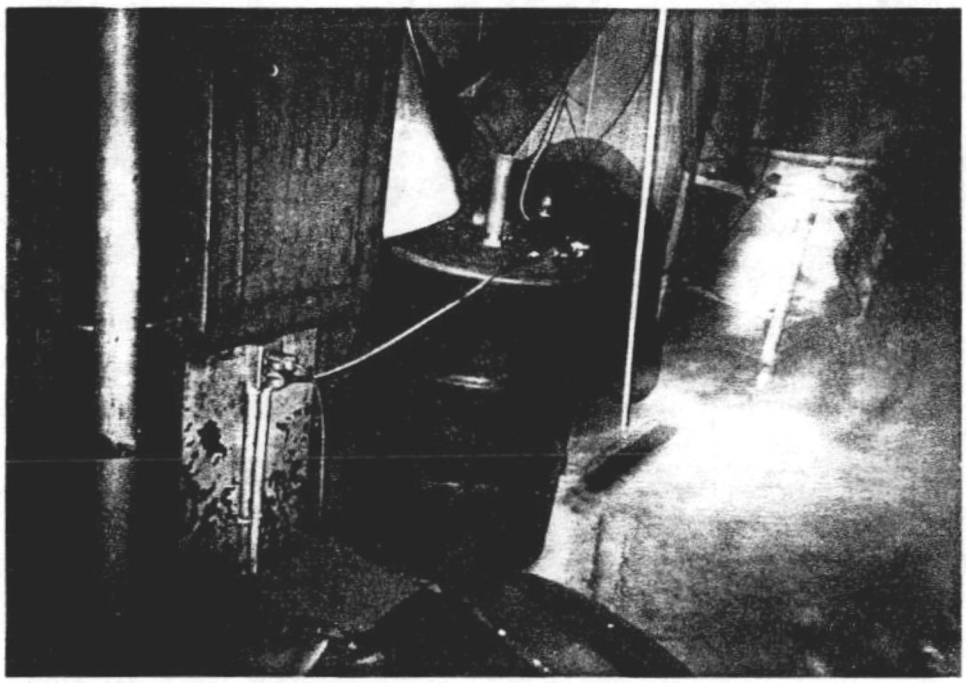

Photo 2: drum where fluorescent bulbs are being crushed.
Black steel drum with green tube on top.

Please print or type with ELITE type *(12 characters per inch)* in the unshaded areas only

Ind

Form Approved. OMB No. 2050-0028. Expires 9-30-86.
GSA No. 0246-EPA-OT

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act)*.

For Official Use Only

Comments

C C

Installation's EPA ID Number			Approved	Date Received (yr. mo. day)
C F COD980285951	T/A	C 1	A	860625

I. Name of Installation

PUBLIC SERVICE ~~COMPANY OF COLORADO~~ ARAPAHOE STATION

II. Installation Mailing Address

Street or P.O. Box

C 3 P. O. BOX 840, Room 946

City or Town	State	ZIP Code
C 4 DENVER	CO	80201

III. Location of Installation

Street or Route Number

C 5 2601 S. PLATTE RIVER DRIVE

City or Town	State	ZIP Code
C 6 DENVER	CO	80223

IV. Installation Contact

Name and Title *(last, first, and job title)*	Phone Number *(area code and number)*
C 2 DICK KREMERS, SUPT. OPERATIONS	303 797 4121

V. Ownership

A. Name of Installation's Legal Owner	B. Type of Ownership *(enter code)*
C R PUBLIC SERVICE COMPANY OF COLORADO	P

VI. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

- [X] a. Generator — [X] 1b. Less than 1,000 kg/mo.
- [ ] 2. Transporter
- [ ] 3. Treater/Storer/Disposer
- [ ] 4. Underground Injection
- [ ] 5. Market or Burn Hazardous Waste Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner

B. Used Oil Fuel Activities

- [ ] 6. Off-Specification Used Oil Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner
- [ ] 7. Specification Used Oil Fuel Marketer *(for On site Burner)* Who First Claims the Oil Meets the Specification

JUN 25 '86

VII. Waste Fuel Burning: Type of Combustion Device *(enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)*

N/A [ ] A. Utility Boiler [ ] B. Industrial Boiler [ ] C. Industrial Furnace

VIII. Mode of Transportation *(transporters only — enter 'X' in the appropriate box(es)*

[ ] A. Air [ ] B. Rail [ ] C. Highway [ ] D. Water [X] E. Other *(specify)* N/A

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

[X] A. First Notification [ ] B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number

ID — For Official Use Only

C W | T/A | C 1

X. Description of Hazardous Wastes *(continued from front)*

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F001	F002	F003	F005		
7	**8**	**9**	**10**	**11**	**12**

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	**38**	**39**	**40**	**41**	**42**
43	**44**	**45**	**46**	**47**	**48**

D. Listed Infectious Wastes. Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 — 261.24)*

- [X] 1. Ignitable *(D001)*
- [X] 2. Corrosive *(D002)*
- [ ] 3. Reactive *(D003)*
- [X] 4. Toxic *(D000)*

XI. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
George J. Vonesh Jr.	GEORGE J. VONESH, JR. REGULATORY AFFAIRS ADMINISTRATOR	5/30/86

CSI T20

PUBLIC SERVICE COMPANY OF COLORADO™
Arapahoe Station
2601 S. Platte River Drive
Denver, CO 80233

October 1, 1997

Ms. Linda Jacobson
U.S. Environmental Protection Agency
Region VIII
999 18th Street, Suite 500
Denver, CO 80202-2466

Re: EPA Inspection of Public Service Company's Arapahoe Station September 17, 1997

Dear Ms. Jacobson:

The following is a response to items needing further identification found during your inspection of Public Service Company's Arapahoe Station on September 17, 1997. You requested that I make a hazardous waste determination for two drums located next to the bull dozer building and one drum located next to the maintenance shop. I have investigated the source of each of these drums and have made the following waste determinations.

1. 55-gallon black drum labeled "citrus solvent contaminated with oil" - maintenance personnel use this drum to containerize lubricating oil and citrus solvent collected during routine compressor and pump maintenance activities. This drum is approximately one-third full. The oil is mineral oil and is non-hazardous. The solvent is called PF Degreaser and does not contain any RCRA listed constituents, nor is the original product hazardous due to it's characteristics as evidenced by the product's Material Safety Data Sheet. This drum will be moved to the lube oil building and once full, the necessary waste determination will be made via analysis. The drum will then be disposed of accordingly.
2. 1 black drum marked "CBC Drip #7, UN 1864" - this drum also was marked "used anti-freeze", which upon further investigation proved to be it's contents. CBC stands for Chalk Bluff Compressor Station, the Public Service Company facility where the anti-freeze came from. The anti-freeze is used by the Coal Crew to keep the coal belts from freezing in the winter. This material is not a waste and will be used this winter. The words CBC Drip #7, UN 1864 have been crossed off the drum to ensure no further confusion as to the drum contents.

3. Black drum, Midwest Industrial Supply, No. 0928405, Road Dust Binder - this material is also used by the Coal Crew to spray onto the coal pile to keep coal dust down. Again, this material is not a waste and will be used as-needed. Drum labels have been placed on the drum to ensure no further confusion as to the drum contents.

Noted on the bottom of the Notice of Inspection Form are the instructions to verify SQG posting (posting of emergency numbers) and verify the "used oil" labeling on the used oil tank. This notation was written during the exit interview. Following the exit interview, you verified the posting of emergency phone numbers in the control room. In addition, the words "Used Oil" have been painted on the used oil tank as recommended. I believe both of these issues have been resolved.

As you requested, I am including with this letter the Material Safety Data Sheet for the Nesslers Reagent used by the Sr. Plant Chemist for water analysis. If you have any questions concerning the information I have provided, please contact me at the address listed above, or by calling (303) 937-5424. Thank you.

Sincerely,

Darcy Berglund
Environmental Analyst

DB:

cc: Richard Chuvarsky
Richard Roe
Bill Graybeal
Nick Pizzuti
File

6638

ACC40178

MATERIAL SAFETY DATA SHEET

FISHER SCIENTIFIC
CHEMICAL DIVISION
1 REAGENT LANE
FAIR LAWN, NJ 07410

EMERGENCY NUMBER USA: (201) 796-7100
CHEMTREC ASSISTANCE: (800) 424-9300
CANADA: (613) 226-8874

SUBSTANCE IDENTIFICATION

SUBSTANCE: **NESSLER'S SOLUTIONS**

TRADE NAMES/SYNONYMS:
NESSLERS SOLUTION APHA; NESSLERS SOLUTION FOLIN WU; SON161; SON201; SON241;

CHEMICAL FAMILY:
Mixture, aqueous

CERCLA RATINGS (SCALE 0-3): HEALTH=3 FIRE=0 REACTIVITY=1 PERSISTENCE=3
NFPA RATINGS (SCALE 0-4): HEALTH=3 FIRE=0 REACTIVITY=1

COMPONENTS AND CONTAMINANTS

COMPONENT: POTASSIUM IODIDE — PERCENT: 1.1 - 7.4
CAS# 7681-11-0

COMPONENT: MERCURIC IODIDE — PERCENT: 1.4 - 9.9
CAS# 7774-29-0

COMPONENT: POTASSIUM HYDROXIDE — PERCENT: 7.1-16.0
CAS# 1310-58-3

COMPONENT: WATER — PERCENT: 90.4 -61.5

OTHER CONTAMINANTS: NONE

EXPOSURE LIMITS:
POTASSIUM HYDROXIDE:
2 mg/m3 OSHA ceiling
2 mg/m3 ACGIH ceiling

2 mg/m3 NIOSH recommended ceiling

1000 pounds CERCLA Section 103 Reportable Quantity

OSHA revoked the final rule limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338)

PHYSICAL DATA

DESCRIPTION: Yellow liquid. BOILING POINT: not available

SPECIFIC GRAVITY: 1.1 to 1.3 EVAPORATION RATE: (ether=1) >1

SOLUBILITY IN WATER: complete

FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD:
Negligible fire hazard when exposed to heat or flame.

FIREFIGHTING MEDIA:
Dry chemical, carbon dioxide, water spray or regular foam (1993 Emergency Response Guidebook, RSPA P 5800.6).

For larger fires, use water spray, fog or regular foam (1993 Emergency Response Guidebook, RSPA P 5800.6).

FIREFIGHTING:
Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks (1993 Emergency Response Guidebook, RSPA P 5800.6, Guide Page 60).

Extinguish using agents indicated; do not use water directly on material. If large amounts of combustible materials are involved, use water spray or fog in flooding amounts. Use water spray to absorb corrosive vapors. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing corrosive vapors; keep upwind.

TRANSPORTATION DATA

U.S. DEPARTMENT OF TRANSPORTATION SHIPPING NAME-ID NUMBER, 49 CFR 172.101:
Potassium hydroxide, solution-UN 1814

U.S. DEPARTMENT OF TRANSPORTATION HAZARD CLASS OR DIVISION, 49 CFR 172.101:
8 - Corrosive material

U.S. DEPARTMENT OF TRANSPORTATION PACKING GROUP, 49 CFR 172.101:
PG II

U.S. DEPARTMENT OF TRANSPORTATION LABELING REQUIREMENTS, 49 CFR 172.101 AND SUBPART E:
Corrosive

U.S. DEPARTMENT OF TRANSPORTATION PACKAGING AUTHORIZATIONS:
EXCEPTIONS: 49 CFR 173.154
NON-BULK PACKAGING: 49 CFR 173.202
BULK PACKAGING: 49 CFR 173.242

U.S. DEPARTMENT OF TRANSPORTATION QUANTITY LIMITATIONS 49 CFR 172.101:
PASSENGER AIRCRAFT OR RAILCAR: 1 L
CARGO AIRCRAFT ONLY: 30 L

TOXICITY

POTASSIUM IODIDE:
TOXICITY DATA: 1862 mg/kg oral-mouse LDLo; 916 mg/kg oral-rabbit LDLo; 167 mg/kg intravenous-rat LDLo; 1117 mg/kg intraperitoneal-mouse LDLo; mutagenic data (RTECS); reproductive effects data (RTECS).
CARCINOGEN STATUS: None.
LOCAL EFFECTS: Irritant- eyes.
ACUTE TOXICITY LEVEL: Insufficient data.
TARGET EFFECTS: Poisoning may affect the thyroid gland and the central nervous system.
ADDITIONAL DATA: May cross the placenta; may be excreted in breast milk; may react synergistically with mercury. Interactions with medications have been reported.

MERCURIC IODIDE:

TOXICITY DATA: 25 ug/m3/17 seconds/week-intermittent inhalation-rat TCLo; 75 mg/kg skin-rat LD50; 357 mg/kg oral-man LDLo; 18 mg/kg oral-rat LD50; 17 mg/kg oral-mouse LD50; 4200 ug/kg intraperitoneal-mouse LD50; reproductive effects data (RTECS).
CARCINOGEN STATUS: Human Inadequate Evidence (IARC Group-3 for inorganic mercury compounds).
LOCAL EFFECTS: Corrosive- eye, ingestion; irritant- inhalation, skin.
ACUTE TOXICITY LEVEL: Highly toxic by dermal absorption, ingestion.
TARGET EFFECTS: Neurotoxin; nephrotoxin. Poisoning may affect the respiratory system and skin.

POTASSIUM HYDROXIDE:
IRRITATION DATA: 50 mg/24 hours skin-human severe; 50 mg/24 hours skin-rabbit severe; 50 mg/24 hours skin-guinea pig severe; 1 mg/24 hours rinsed eye-rabbit moderate.
TOXICITY DATA: 273 mg/kg oral-rat LD50; mutagenic data (RTECS).
CARCINOGEN STATUS: None.
LOCAL EFFECTS: Corrosive- inhalation, skin, eye, ingestion.
ACUTE TOXICITY LEVEL: Toxic by ingestion.
TARGET EFFECTS: No data available.
AT INCREASED RISK FROM EXPOSURE: Persons with pre-existing skin and eye conditions.

HEALTH EFFECTS AND FIRST AID

INHALATION:
POTASSIUM IODIDE:
ACUTE EXPOSURE- Inhalation of the dust may be irritating to the upper respiratory tract, cause coughing and chest discomfort.
CHRONIC EXPOSURE- Repeated or prolonged exposure may result in "iodism" as detailed in chronic ingestion.

MERCURIC IODIDE:
IRRITANT/NEUROTOXIN/NEPHROTOXIN.
28 mg(Hg)/m3 Immediately Dangerous to Life or Health.
ACUTE EXPOSURE- High dust concentrations may cause sore throat, coughing, dyspnea, labored breathing, and delayed pulmonary edema. Inhalation of a high concentration of mercury vapor can cause almost immediate dyspnea, cough, fever, nausea, vomiting diarrhea, inflammation of the mouth, salivation, and metallic taste. The symptoms may resolve or may progress to necrotizing bronchiolitis, pneumonitis, pulmonary edema, and pneumothorax. Acidosis and renal damage with renal failure may occur.

CHRONIC EXPOSURE- Inhalation of mercury vapor and dusts over a long period may cause mercurialism. Findings are extremely variable and may include tremors, salivation, inflammation of the mouth, loosening of the teeth, a blue line on the gums, pain, and numbness in the extremities, nephritis, diarrhea, anxiety, headache, weight loss, anorexia, mental depression, insomnia, irritability, instability, and hallucinations.

POTASSIUM HYDROXIDE:
CORROSIVE.
ACUTE EXPOSURE- Inhalation of dust or mist may cause symptoms of respiratory tract irritation possibly including coughing, choking, pain in the nose, mouth, and throat, lesions of the nasal septum, and burns of the mucous membranes. If sufficient quantities are inhaled, pulmonary edema may develop, often with a latent period of 5-72 hours. The symptoms may include tightness in the chest, dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include weak, rapid pulse, hypotension, hemoconcentration, and moist rales.
CHRONIC EXPOSURE- Depending on the concentration and duration of exposure, repeated or prolonged exposure to corrosive substances may cause inflammatory and ulcerative changes in the mouth and possibly bronchial and gastrointestinal disturbances.

FIRST AID- Remove from exposure area to fresh air immediately. Perform artificial respiration if necessary. Maintain airway, blood pressure and respiration. Keep warm and at rest. Treat symptomatically and supportively. Get medical attention immediately. Qualified medical personnel should consider administering oxygen.

SKIN CONTACT:
POTASSIUM IODIDE:
ACUTE EXPOSURE- Contact with the dust may be irritating while solutions may be corrosive. Iodides may cause sensitization in persons previously exposed.
CHRONIC EXPOSURE Hypersensitivity to iodides may develop characterized by skin rashes, rhinitis, laryngeal edema, serum sickness with fever, joint pain, and swelling and lymph node enlargement.

MERCURIC IODIDE:
IRRITANT/NEUROTOXIN/NEPHROTOXIN/HIGHLY TOXIC.
ACUTE EXPOSURE- Contact with the substance may cause redness and irritation. Sensitization dermatitis may occur in previously exposed workers. Substance may be absorbed through the skin. Mercuric iodide is used topically as a vesicant.

CHRONIC EXPOSURE May cause irritation and sensitization dermatitis. May result in psychic disturbances, peripheral neuropathy, and kidney damage as in chronic inhalation.

POTASSIUM HYDROXIDE:
CORROSIVE.
ACUTE EXPOSURE- Direct contact may cause severe pain, burns, and possibly brownish stains. The corroded areas are soft, gelatinous and necrotic, and the tissue destruction may be deep.
CHRONIC EXPOSURE- Repeated or prolonged contact may cause dermatitis or effects similar to acute exposure. Frequent applications of aqueous solutions (3-6 percent) of potassium hydroxide to the skin of mice for 46 weeks produced tumors identical to those from coal tar; warts occurred first and then skin tumors developed.

FIRST AID- Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). If burns occur, proceed with the following: Cover affected area securely with sterile, dry, loose-fitting dressing. Treat symptomatically and supportively. Get medical attention immediately.

EYE CONTACT:
POTASSIUM IODIDE.
IRRITANT.
ACUTE EXPOSURE- Contact with the eyes may cause irritation, redness and pain while solutions may be corrosive. Injection of a 3% solution into the cornea of rabbit eyes caused only a slight reaction.
CHRONIC EXPOSURE- Repeated or prolonged exposure may cause conjunctivitis.

MERCURIC IODIDE:
CORROSIVE.
ACUTE EXPOSURE- Direct contact with the eye may cause serious burns and permanent loss of vision. Corneal opacification and necrosis may occur.
CHRONIC EXPOSURE- Not reported in humans.

POTASSIUM HYDROXIDE:
CORROSIVE.
ACUTE EXPOSURE- Direct contact with solid or solutions may cause pain and burns, possibly severe. The degree of injury depends on the concentration and duration of contact. There may be edema, destruction of epithelium, corneal opacification, and iritis. When damage is less than excessive, these symptoms tend to ameliorate. In severe burns, the full extent of the

injury may not be immediately apparent. Late complications may include persistent edema, vascularization, and scarring of the cornea, permanent opacity, staphyloma, cataract, and symblepharon.

CHRONIC EXPOSURE- Effects depend on concentration and duration of exposure. Repeated or prolonged exposure to vapors and/or fumes may result in conjunctivitis or effects as in acute exposure.

FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15 20 minutes). Continue irrigating with normal saline until the pH has returned to normal (30-60 minutes). Cover with sterile bandages. Get medical attention immediately.

INGESTION:

POTASSIUM IODIDE:

ACUTE EXPOSURE- Iodide salts act principally as expectorants or diuretics and may cause mild hyperhidrosis, gastrointestinal upset, nausea, vomiting and epigastric pain. Hypersensitivity to iodides may be manifested by angioneurotic edema, cutaneous and mucosal hemorrhages, laryngeal edema, and symptoms resembling serum sickness, such as fever, arthralgia, lymph node enlargement and eosinophilia.

CHRONIC EXPOSURE- Ingestion of .15 mg for 10 days produced enlarged parotid glands, swelling of the face and difficulty swallowing. Repeated ingestion of iodides may cause iodism characterized by brassy taste in the mouth, salivation, lacrimation, soreness of the teeth and gums, ulceration of the mucous membranes, coryza, sneezing, productive cough, severe headache, fever, nausea, vomiting, gastric disturbance, epigastric pain, and diarrhea. Other effects may include pulmonary and glottal edema, laryngitis, bronchitis, edema of the eyelids, salivary glands and lymph glands, conjunctivitis, and parotitis. Various skin reactions, including erythema, acne, urticaria, eczematous contact-type dermatitis, pustular psoriasis, and granulomatous reactions may occur. Some skin reactions may be fatal. Thyroid adenoma, goiter, hypothyroidism, thrombocytopenia, anorexia, weight loss, sleeplessness, and nervous symptoms may also occur. Iodides may cross the placenta. The use of iodides for asthma in pregnancy has resulted in severe goiter with the possibility of fetal goiter, fetal death, cretinoid appearance of the newborn and abnormal thyroid function. Potassium iodide is excreted in breast milk possibly causing skin rash and thyroid suppression in the infant. Reproductive effects have also been reported in animals.

MERCURIC IODIDE:

CORROSIVE/NEUROTOXIN/NEPHROTOXIN/HIGHLY TOXIC.

ACUTE EXPOSURE- When ingested, necrosis begins immediately in the mouth, throat, esophagus, and stomach. Within a few minutes, violent pain, profuse vomiting, and severe purging may occur. The patient may die within a few minutes from fluid/electrolyte losses and peripheral vascular collapse, but death (from uremia) is usually delayed 5 to 12 days.
If the victim survives this phase, the primary gastrointestinal disturbances usually subside. A second phase commonly develops within 1 to 3 days after exposure, and is characterized by inflammation of the mouth, membranous colitis, and tubular nephrosis. The salivary glands, kidneys, and gastrointestinal mucosa may slowly excrete large amounts of mercury. Death may occur in this phase from renal failure.
A mean lethal dose for adults is between 1 and 4 grams.

CHRONIC EXPOSURE- The principal manifestations of chronic poisoning are metallic taste, excessive salivation, gingivitis, pyorrhea with loosening of the teeth, digestive disorders, abdominal distress, and skin eruptions progressing to dermatitis. The sensory and motor nerves may be affected with numbness and weakness. Liver and kidney damage may occur progressing to acute renal failure with anuria. Subtle or dramatic behavior and personality changes (erithism) have been associated with chronic mercurial poisoning.

POTASSIUM HYDROXIDE:
CORROSIVE/TOXIC.

ACUTE EXPOSURE- Ingestion of 273 mg/kg of potassium hydroxide was lethal to rats tested. Ingestion of strong alkalies may be followed by severe pain, vomiting, diarrhea, and collapse. The vomitus contains blood and desquamated mucosal lining. If death does not occur in the first 24 hours, the patient may improve for 2-4 days and then have a sudden onset of severe abdominal pain, boardlike abdominal rigidity, and rapid fall of blood pressure indicating delayed gastric or esophageal perforation. Damage to the esophagus and stomach after ingestion may progress for 2-3 weeks. Death from peritonitis may occur as late as 1 month after ingestion. Even though the patient recovers from the immediate damage, esophageal stricture may occur weeks, months or even years later to make swallowing difficult.

CHRONIC EXPOSURE- Depending on the concentration, repeated ingestion may cause effects as with acute ingestion.

FIRST AID- Give large amounts of water or milk immediately. Allow vomiting to occur. Do not perform gastric lavage or induce emesis. Esophagoscopy is the only way to exclude the possibility of corrosion in the upper gastro-intestinal tract; if corrosion is suspected, esophagoscopy should usually

be performed within 24 hours. (Dreisbach & Robertson; Handbook of Poisoning; 12th Ed.). Do not give anything by mouth if person is unconscious or otherwise unable to swallow. If vomiting occurs, keep head lower than hips to help prevent aspiration. Maintain airway and respiration. Treat symptomatically and supportively. Get medical attention immediately.

ANTIDOTE:
No specific antidote. Treat symptomatically and supportively.

REACTIVITY

REACTIVITY:
Vigorous, exothermic reaction with water.

INCOMPATIBILITIES:
POTASSIUM IODIDE:
ALKALI METALS: Violent reaction.
ALKALOIDAL SALTS: Incompatible.
BROMINE PENTAFLUORIDE: Violent reaction.
BROMINE PENTATRIFLUORIDE: Violent reaction, often with ignition at ambient or slightly elevated temperatures.
BROMINE TRICHLORIDE: Violent reaction.
BROMINE TRIFLUORIDE: Violent reaction.
CALOMEL: Incompatible.
CHARCOAL, OZONE: Possible explosion reaction.
CHLORAL HYDRATE: Incompatible.
CHLORINE TRIFLUORIDE: Violent reaction, often with ignition at ambient or slightly elevated temperatures.
DIAZONIUM SALTS: Formation of an unstable and explosive product.
2-DIISOPROPYL PEROXYDICARBONATE: Instant decomposition. Violent reaction.
FLUORINE PERCHLORATE: Explosion on contact with potassium iodide.
METALLIC SALTS: Incompatible.
METALS: Corrosive in all concentrations to most metals, except stainless steel, titanium, and tantalum.
OXIDANTS (STRONG): Violent reaction.
PERCHLORIC ACID: Violent reaction.
POTASSIUM CHLORATE: Incompatible.
TARTARIC AND OTHER ACIDS: Incompatible.
TRIFLUOROACETYL HYPOFLUORITE: May react explosively on contact with aqueous potassium iodide uless greatly diluted with nitrogen.

MERCURIC IODIDE:

be performed within 24 hours. (Dreisbach & Robertson; Handbook of Poisoning; 12th Ed.). Do not give anything by mouth if person is unconscious or otherwise unable to swallow. If vomiting occurs, keep head lower than hips to help prevent aspiration. Maintain airway and respiration. Treat symptomatically and supportively. Get medical attention immediately.

ANTIDOTE:
No specific antidote. Treat symptomatically and supportively.

REACTIVITY

REACTIVITY:
Vigorous, exothermic reaction with water.

INCOMPATIBILITIES:
POTASSIUM IODIDE:
ALKALI METALS: Violent reaction.
ALKALOIDAL SALTS: Incompatible.
BROMINE PENTAFLUORIDE: Violent reaction.
BROMINE PENTATRIFLUORIDE: Violent reaction, often with ignition at ambient or slightly elevated temperatures.
BROMINE TRICHLORIDE: Violent reaction.
BROMINE TRIFLUORIDE: Violent reaction.
CALOMEL: Incompatible.
CHARCOAL, OZONE: Possible explosion reaction.
CHLORAL HYDRATE: Incompatible.
CHLORINE TRIFLUORIDE: Violent reaction, often with ignition at ambient or slightly elevated temperatures.
DIAZONIUM SALTS: Formation of an unstable and explosive product.
2-DIISOPROPYL PEROXYDICARBONATE: Instant decomposition. Violent reaction.
FLUORINE PERCHLORATE: Explosion on contact with potassium iodide.
METALLIC SALTS: Incompatible.
METALS: Corrosive in all concentrations to most metals, except stainless steel, titanium, and tantalum.
OXIDANTS (STRONG): Violent reaction.
PERCHLORIC ACID: Violent reaction.
POTASSIUM CHLORATE: Incompatible.
TARTARIC AND OTHER ACIDS: Incompatible.
TRIFLUOROACETYL HYPOFLUORITE: May react explosively on contact with aqueous potassium iodide uless greatly diluted with nitrogen.

MERCURIC IODIDE:

CHLORINE TRIFLUORIDE: Reaction with flame.
POTASSIUM: Strong explosion on contact.
SODIUM: Strong explosion on contact.

POTASSIUM HYDROXIDE:
ACETIC ACID: Reacts violently.
ACIDS: Violent reaction.
ACROLEIN: Violent polymerization.
ACRYLONITRILE: Violent polymerization.
ALCOHOLS: Dissolves exothermically.
ALUMINUM: Corrosive in the presence of moisture.
AMMONIUM HEXACHLOROPLATINATE: Formation of explosive product.
AMMONIUM SALTS: Evolution of ammonia gas.
BENZOYL CHLORIDE + SODIUM AZIDE: Violent exothermic reaction.
P-BIS(1,2-DIBROMOETHYL)BENZENE: Highly exothermic reaction.
BROMOFORM: Violent, exothermic reaction.
BROMOFORM + CYCLIC POLYETHYLENE OXIDES: Possible explosive reaction.
CALCIUM CARBIDE + CHLORINE: Formation of explosive dichloroacetylene.
CHLORINE: Explosive reaction.
CHLORINE DIOXIDE: Explosion on contact.
CHLORINE + HYDROGEN PEROXIDE: Produces red luminescence during reaction.
CHLOROFORM + METHANOL: Intense exothermic reaction.
CYCLOPENTADIENE: Vigorous exothermic resin formation.
1,2 DICHLOROETHYLENE: Formation of explosive and spontaneously flammable chloroacetylene.
GERMANIUM: Incandescent reaction.
GLASS: Slowly attacked.
HYDROCARBONS (HALOGENATED): Violent reaction.
HYPONITROUS ACID: Ignition reaction.
LEAD: Corrosive in the presence of moisture.
MALEIC ANHYDRIDE: Decomposes exothermically or explosively.
METALS: Corrosive reaction with formation of flammable hydrogen gas.
N-METHYL-N-NITROSOUREA + METHYLENE CHLORIDE: Explosive reaction.
NITRIC TRICHLORIDE: Explosive reaction.
NITROALKANES: Formation of explosive salts.
NITROBENZENE + METHANOL (TRACE): Violent, exothermic reaction.
NITROETHANE: Formation of explosive salt.
NITROGEN TRICHLORIDE: Explosive reaction.
NITROMETHANE: Formation of explosive salt.
O-NITROPHENOL (MOLTEN): Reacts violently.
NITROPROPANE: Formation of explosive salt.
N-NITROSOMETHYLUREA + N-BUTYL ETHER: Formation of explosive compound.
PHOSPHORUS: Evolution of flammable phosphine.

POTASSIUM PEROXODISULFATE: Ignition reaction.
POTASSIUM PERSULFATE + WATER: Exothermic reaction.
SUGARS: Evolve carbon monoxide at or above 84 C.
TETRACHLOROETHANE: Formation of flammable chloroacetylene gas.
2,2,3,3-TETRAFLUOROPROPANOL: Exothermic reaction.
TETRAHYDROFURAN (PEROXIDISED): Possible explosive reaction.
THORIUM DICARBIDE: Incandescent reaction on heating.
TIN: Corrosive in the presence of moisture.
TRICHLOROETHYLENE: Formation of explosive dichloroacetylene on heating.
2,4,6-TRINITROTOLUENE + METHANOL: Formation of explosive product.
ZINC: Corrosive in the presence of moisture.

DECOMPOSITION:
Thermal decomposition products may include toxic and hazardous fumes of mercury, iodides and oxides of carbon, phosphorus and sulfur.

POLYMERIZATION:
Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

STORAGE AND DISPOSAL

Observe all federal, state and local regulations when storing or disposing of this substance.

Storage

Store away from incompatible substances.

Disposal

Disposal must be in accordance with standards applicable to generators of hazardous waste, 40 CFR 262. EPA Hazardous Waste Number D002.
100 pound CERCLA Section 103 Reportable Quantity.

CONDITIONS TO AVOID

May burn but does not ignite readily. Flammable, poisonous gases may accumulate in tanks and hopper cars. May ignite combustibles (wood, paper,

oil, etc.).

SPILL AND LEAK PROCEDURES

OCCUPATIONAL SPILL:
Do not touch spilled material. Stop leak if you can do it without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For small dry spills, with clean shovel place material into clean, dry container and cover. Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry.

PROTECTIVE EQUIPMENT

VENTILATION:
Provide local exhaust ventilation system to meet published exposure limits.

RESPIRATOR:
The following respirators are recommended based on information found in the physical data, toxicity and health effects sections. They are ranked in order from minimum to maximum respiratory protection.
The specific respirator selected must be based on contamination levels found in the work place, must be based on the specific operation, must not exceed the working limits of the respirator and must be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

Any chemical cartridge respirator with full facepiece.

Any type 'C' supplied-air respirator with a full facepiece operated in pressure demand or other positive pressure mode or with a full facepiece, helmet or hood operated in continuous-flow mode.

Any self contained breathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

Any self contained breathing apparatus that has a full facepiece and is operated in a pressure demand or other positive pressure mode.

Any supplied-air respirator that has a full facepiece and is operated in a pressure demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode.

CLOTHING:
Employee must wear appropriate protective (impervious) clothing and equipment to prevent any possibility of skin contact with this substance.

GLOVES:
Employee must wear appropriate protective gloves to prevent contact with this substance.

EYE PROTECTION:
Employee must wear splash-proof or dust-resistant safety goggles and a faceshield to prevent contact with this substance.

Emergency wash facilities:
Where there is any possibility that an employee's eyes and/or skin may be exposed to this substance, the employer should provide an eye wash fountain and quick drench shower within the immediate work area for emergency use.

CREATION DATE: 07/19/05 REVISION DATE: 04/07/95

-ADDITIONAL INFORMATION-
THE ABOVE INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES.

original file

U.S. EPA REGION VIII

RCRA COMPLIANCE INSPECTION REPORT

Facility:	Arapahoe Generating Station Public Service Company 2601 South Platte River Drive Denver, CO 80223 Denver County
Facility Contact:	Richard Chuvarsky, Operations Manager
Telephone Number:	(303) 937-5400
EPA I.D. No.:	COD980285951
Notification Status:	SQG
Inspection Type:	Compliance Evaluation Inspection
Date:	September 17, 1997
Time In:	10:05 a.m.
Time Out:	2:20 p.m.
Weather:	Overcast, cool
Inspector:	Linda Jacobson, EPA Philippe Pierre-Louis, EPA
Facility Representatives:	Richard Chuvarsky Operations Manager Darcy Berglund Plant Environmental Coordinator Bill Kerschner Facility Safety Specialist Nick Pizzuti Environmental Auditor

The EPA inspectors, Philippe Pierre-Louis and Linda Jacobson, arrived at the facility at 10:05 a.m. on September 17, 1997, and presented their credentials to Richard Chuvarsky, Operations Manager, and the other facility representatives present. Mr. Chuvarsky granted access by consent and initialed the Notice of Inspection (NOI) to indicate such.

Ms. Jacobson explained the intent of the inspection was to ascertain the facility's compliance with the RCRA requirements applicable to a Small Quantity Generator (SQG). Following a physical site inspection of the satellite accumulation areas and the waste generation points, Ms. Jacobson indicated that the inspectors would review the following records: manifests and other shipment records, training records, inspection records, and spill records. We were informed that we would need hard hat, steel-toed shoes and hearing protection in certain portions of the plant.

The Arapahoe Generating Station indicated that they are normally a conditionally exempt generator but that they occasionally fall into the SQG category. They file biennially with CDPHE as an SQG. Their waste streams include: waste paints from maintenance, dry cell batteries, Nessler's reagent, Safety-Kleen solvents, lead-contaminated debris, asbestos, and used oil. They explained that Nessler's reagent is a chemical used to determine hardness/softness of water that is recirculated. They also generate oily contaminated debris. They do not perform auto maintenance at this plant. They have satellite accumulation points for dry cell batteries, waste paints and Nessler's reagent. The rest of the waste that they generate is generated on a project-specific basis and is taken to the accumulation area.

When they do a clean up, Arapahoe puts out a barrel for oily rags or whatever. Arapahoe does a cleanup on an overall basis several times per year. They have sixteen coal mills that they overhaul once every eighteen months.

Light bulbs are disposed in the dumpsters. They have not received directions on how to manage light bulbs yet from the central office. We were informed that a Public Service Company Environmental Services representative was on the way to join us.

They have two Safety-Kleen machines that are changed every two to three months. The used oil is also picked up by Safety-Kleen; they used Mesa Oil prior to switching to Safety-Kleen.

They have approximately 90 employees at this location that work 3 shifts. Operations works 3 shifts. Maintenance and administration works 1 shift. The Emergency Coordinator is the Operations Team lead. They have one for each shift. If the

Operations Team lead is not on site, the Control Room operator acts as the Emergency Coordinator.

The General Compliance Training Program is conducted yearly. Bill Kerchner has employee training rosters. Everyone has to take this training.

The Spill Kit is located at the satellite accumulation area: oil booms and pads are located in the warehouse. Fire extinguishers are located throughout the plant. Arapahoe indicated that they have a list of the fire extinguishers, which the inspectors indicated that they would need to verify.

At the waste accumulation area, Ms. Berglund indicated that her name and phone number is posted along with an alternate. Employees call the Control Room in the event of an emergency or a spill. Ms. Berglund indicated that she would also get us a copy of the spill records.

Nick Pizzuti, Public Service Company Environmental Auditor, joined us. We then conducted the physical inspection of the Arapahoe Generating Station.

PHYSICAL SITE INSPECTION

We inspected one of the satellite accumulation points at which 2 drums were located: 1 black drum, labeled "Oily Debris" and 1 blue drum, labeled "Satellite Dry Cell Batteries". We were told that the wastes were generated throughout this area and that the oily debris consisted largely of rags. The inspectors looked in the two drums. The Oily Debris drum was empty. The battery drum contained only flashlight batteries. On both of these drums, the lids were in place but not secured.

We next observed one drum of crushed fluorescent light bulbs. We were told that the electricians take care of this drum and that Ms. Berglund was not sure how often the electricians fill and empty this drum. This was a black steel drum with a green tube on top. Darryel Devine, an electrician, was asked to discuss this drum with us. Mr. Devine indicated that he dumped the fluorescent bulb barrel every 2 to 3 months. He sticks the light bulb into the tube, which has a chain in the tube on a motor. Only the tube-kind of bulbs are crushed. The other type of light bulbs go straight to the dumpster.

We next observed the satellite accumulation point for the Nessler's Reagent. There was one 55-gallon black drum labeled "Nessler's Reagent Only", "Hazardous Waste". The plant chemist generates this wastestream. The chemist was testing the plant water next to the drum at his lab bench. The inspectors requested a copy of the MS/DS sheet for the Nessler's reagent.

We noted the presence of a Fire Blanket, Fire Extinguisher and Eye Wash in this area.

We were shown the dry cell batteries (non haz) collection bucket at the tool crib. They also have one Safety-Kleen unit at the maintenance shop, a 32-gallon capacity parts washer. There was also one blue plastic drum, labeled "Waste Aerosol Paint Cans" inside the maintenance shop. Two of the aerosol cans in this drum were CRC Heavy Duty Degreaser (TCE active ingredient). These cans were empty when sprayed by Mr. Pizzuti. This drum is used as a collection area. The Denver County Fire Department had them relocate the aerosol puncture device to the hazardous waste accumulation building. Aerosol cans are punctured and thrown away.

Outside the Maintenance Shop by the hopper, we saw one black 55-gallon drum labeled, "Used Citrus Solvent Contaminated with Oil". Ms. Berglund was unsure what the source of this was but it was believed to be used by the maintenance crew.

We inspected the storage of used oil, which is shipped off as an off-spec fuel. This oil is sent to Safety-Kleen. There were three black drums, only 1 of 3 was labeled as "Used Oil". There was also a green tank, labeled "Waste Oil" rather than "Used Oil". The green tank is 350 gallon capacity.

We were then shown the "empty barrel storage" which consisted of eight drums on pallets as follows:

2 black, 1 blue on 1 pallet
2 black, 1 blue on 2nd pallet
1 black, 1 white on 3rd pallet

These drums were labeled as follows:

1. 1 white drum SWEPCO306 Supreme Formula Engine Oil
2. 1 blue drum Antifreeze Water sampled 2/7/96, R110296009, antifreeze water--sample and use on coal belts at other plants to deice coal belts in winter time.
3. Waste Antifreeze, black drum, R100194001
4. Waste Antifreeze, blue drum, R11-0194-001
5. CBC Drip #7, UN1864
6. Used Antifreeze, R110296011
7. 1 black drum, 0928405, Midwest Ind. Supply
8. Waste Antifreeze, no number, black drum

Bill Graybeal, Plant Senior Chemist, joined us and tried to identify some of the above drums and verify the contents. He stated that the waste barrels are sent to Arapahoe from 7th Avenue. Arapahoe reuses antifreeze for deicing of the coal conveyor belts. The antifreeze is sampled at the Lipan Garage for RCRA characteristics then sent here if nonhazardous for deicing of the coal belts in winter.

None of the facility representatives were sure of the source of the red and white drum--SWEP CO and Midwest Ind. Supply. The facility representatives identified the Midwest Ind. Supply as dust suppressant, "Road Dust Binder", which is applied to soil with water. The coal crew determines if this material is still usable. Ms. Berglund will confirm the contents of this drum.

We next inspected the accumulation building. They have Building 37 labeled as "Hazardous and Nonhazardous Waste Accumulation Area In Case of Emergency Contact Darcy Berglund 937-5424 Bill Graybeal 937-5463 After Hours Call 937-5420 or 7-211." The number 7-211 is the code call system to go to the control room.

The waste is brought to the accumulation building from the satellite accumulation areas. The waste accumulation building was segregated into the following waste types:

1) asbestos
2) waste paint
3) waste Hg
4) Misc. Waste
5) Oily Rags and Debris
6) Dry Cell Batteries

In the waste accumulation building were the following wastes:

1) Waste Paint Satellite Drum, is aerosol can puncture device, with hazardous waste label
2) 1 black drum, Haz. Waste Label, "Lead Debris", Accum. Date 8/7/97--contains lead material and expendable protective gear
3) Oily Rags and Debris Area: 1 waste oil with diesel, labeled "Waste Oil and Diesel Mix", 8/97,Sampled 9/15/97 and one black 55-gallon drum labeled "Floor Dry Absorb-All/Oil/Antifreeze", sampled 9/10/97
4) 2 one- gallon cans labeled "Foremost 1195 Stripper and Rust Remover", 1 one-gallon can labeled "Steelcote Zinc Rich Zinc Dust Powder", one five-gallon can labeled "Koppers Bitumastic No. 50" (coal tar). Arapahoe will characterize these and may dispose as hazardous.

The inspectors noted that there were shovels, a spill kit and a fire extinguisher in the accumulation building. There was no door on the accumulation building. There was a 12-inch berm except for ramping at the door opening.

The lead waste is generated from old paint. Arapahoe has a special lead abatement kit. There is no waste mercury either in storage or currently being generated.

We next inspected Building 21 which contained dirty filters. There were two green drums labeled "Used Oil Filters Drums",

taken by Safety-Kleen. One of the two drums was empty. The facility representatives were not sure how the air filters, also present in this building, are being managed.

We then looked at the TVS Tool and Vacuum Paint Removal Device. This sucks lead dust into vacuum cleaner type container, which is emptied after each use into an accumulation drum. There is no storage in this machine. The welders and welder helpers are trained to use this for lead abatement projects.

We saw the second Safety-Kleen machine. We were shown the bead blast unit in maintenance the shop. The bead blaster is periodically cleaned out, dust analyzed, and disposed.

Records Review

After the site tour, the inspectors reviewed the inspection records, the manifests/LDR, used oil shipment records, training records and the spill records.

There were two used oil shipments. One shipment was picked up by Approved Oil, 247 gallons on April 16, 1997. The second shipment of 300 gallons was picked up by Safety-Kleen on June 26, 1997. Public Service screens its used oil for PCBs and total halogens. These are analyzed in-house by Public Service.

The 1996 Waste Shipment records consisted of the following:

1/9/96	31 gal	Safety-Kleen
3/1/96	61 gal	Safety-Kleen
4/22/96	30 gal	Safety-Kleen
6/17/96	30 gal	Safety-Kleen
8/12/96	31 gal	Safety-Kleen
9/24/96	55 gal	Clean Harbors
	(Waste paint related material)	
10/11/96	52 gal	Safety-Kleen
11/25/96	453 lb.	Oil and Solvent Process Co.
	(Nessler's Reagent and Water, D002, D009)	
11/26/96	32 gal.	Safety-Kleen

The 1997 Waste Activity consisted of the following:

1/97 12 lb. Nesslers
505 lb. Safety-Kleen
2/97 12 lb Nesslers
3/97 12 lb Nesslers
253 lb Safety-Kleen
4/97 12 lb Nesslers
52 lb lead debris

5/97 12 lb. Nesslers
95 lb. Safety-Kleen
6/97 12 lb Nesslers
7/97 12 lb Nesslers
253 lb Safety-Kleen
26 lb Lead Debris
8/97 12 lb Nesslers
10 lb lead debris
9/97 32 gal Safety-Kleen

Arapahoe explained that its oily rags contain only oil, no halogenated solvents. A citrus solvent is used as the solvent. Orange peel solvent is used to clean the bearings, grids, etc.. The oily rags are sent to CSI.

Mr. Pierre-Louis reviewed the training records and training materials. Training was conducted on August 28 and 29, 1997. The training topics included:

1. Asbestos Awareness
2. Confined Space
3. Fall Protection
4. First Aid
5. Haz. Com
6. Haz Woper, 1st Responder Awareness
7. Lead Awareness
8. Scaffolding Safety Awareness
9. RCRA
10. Stormwater
11. Respiratory Protection

CLOSING CONFERENCE

At the closing conference, the following concerns were discussed:

1) the disposal of light bulbs into the dumpster. A hazardous waste determination is necessary.

The facility responded that a draft management plan for fluorescent light bulbs is being developed. In the interim, Arapahoe plans to put light bulbs in the original carton, ship to the main distribution center and then recycle. Arapahoe has not done an analytical check on the light bulbs at this plant and bulbs from the accumulation drum which the inspectors observed. The facility indicated that they cannot rely on purchase records for waste characterization. Arapahoe cannot say the bulbs are non-hazardous based on this. Arapahoe will halt putting bulbs in dumpster until PSC has a bulb management plan with EPA and CDPHE input.

2) 1 black 55-gallon drum labeled "Used Citrus Solvent Contaminated with Oil". A hazardous waste determination is necessary.

The facility agreed to make this determination. The inspectors instructed Arapahoe to use either analysis or generator knowledge, as appropriate.

3) hazardous waste determination on the following drums from the 8 drums on the pallets:
   a) CBC Drip # 7, UN 1864
   b) black drum, Midwest Ind. Supply No. 0928405, Road Dust Binder (used)

The facility agreed to make this determination. The inspectors instructed Arapahoe to use either analysis or generator knowledge, as appropriate.

4) label used oil containers with the words "Used Oil"

The facility responded that labels would be placed on the containers today.

5) determine how used air filters are managed.

The facility responded that the air filters are sent out, cleaned, and returned to the plant for reuse.

6) Good Housekeeping practice to have a door on the waste accumulation building to prevent excess precipitation. ponding.

The facility responded that precipitation is not a problem. Also, they indicated that they do not store or generate water reactive materials.

7) ensure that, as required for a SQG, the following are posted by a telephone: the Emergency Coordinator name and phone number, the location of fire extinguishers and spill control materials, location of fire alarm (if appropriate), and the Fire Department number.

The inspectors went to the Control Room and checked the Plant Emergency Plan, which is located in both control rooms and the shift supervisor's office. The inspectors noted posting by the phone of the Shift Unit Managers and their home and pager numbers, the Fire Department and Police phone numbers, the Safety Adviser, and Medical Assistance.

Ms. Jacobson completed the Notice of Inspection form. The following information was requested to be provided within thirty calendar days:

1) hazardous waste determination on the 55-gallon, black drum, labeled "Citrus Solvent Contaminated with Oil"
2) hazardous waste determination on the 55-gallon drum labeled "CDB Drip # 7, UN 1864"

3) hazardous waste determination on the 55-gallon, black drum labeled "Midwest Ind. Supply, No. 0928405, Road Dust Binder"

Arapahoe Station was informed that the inspection report would be ready in 45 days and that they would be provided a copy of the report and photos. Ms. Jacobson noted that there were no violations pending in-office review and receipt of the requested information.

SUMMARY OF FINDINGS/CONCLUSIONS

Based on information provided during this inspection, Arapahoe Generating Station is a SQG of hazardous waste. All manifests, LDR paperwork, spill records, and training records were properly maintained, completed, and available for review. Information required by the NOI was provided in a letter of October 1, 1997 from Darcy Berglund to Linda Jacobson, EPA. This submittal supplied the requested information and satisfied the items on the NOI. The following were determined: the drums were found to be usable material which was not yet a solid waste and thus nonhazardous. A used oil label had been placed on the green tank. Following receipt of this information and in-office review of the inspection findings, it was determined that Arapahoe Generating Station is in compliance with the RCRA SQG requirements.

Sixteen photos were taken, but due to camera malfunction, only two were able to be developed.

Prepared by: Linda Jacobson 10/29/97
Linda Jacobson Date
EPA Inspector

Reviewed by: Philippe Pierre-Louis 10/29/97
Philippe Pierre-Louis Date
EPA Inspector

Photo Log

Photo 1: inside battery drum
Photo 2: drum where fluorescent bulbs are being crushed. Black steel drum with green tube on top.

Sixteen photos were taken but due to camera malfunction only 2 developed.

PUBLIC SRVICE COMPANY OF COLORADO

ARAPAHOE STATION

EPA ID No.: **COD980285951**

Hazardous Waste Activity Report

DATE: 1/1/97 to 12/31/97

Instructions: Please enter the total weight (in pounds) of hazardous waste generated at Arapahoe for each month of the above mentioned year. This generated waste will include Nesslers reagent waste, Lead debris (paint chips,etc..) Safety-Kleen solvent waste and any other hazardous waste.

JANUARY	~12P Nesslers 505P Safety Kleen ~12P Nesslers	JULY	~12P Nesslers 253P Safety Kleen 26P Lead Debris ~12P Nesslers
FEBRUARY		AUGUST	10P Lead Debris
MARCH	~12P Nesslers 253P Safety Kleen ~12P Nesslers	SEPTEMBER	~~Safety Kleen~~ 32g
APRIL	52P Lead Debris ~12P Nesslers	OCTOBER	
MAY	95P Safety Kleen ~12P Nesslers	NOVEMBER	
JUNE		DECEMBER	

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Fax 303.571.7880

September 8, 1997

Ms. Carla Lenkey
Water Quality Protection Section
Water Quality Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80222-1530

RE: PSC Arapahoe Station Sulfuric Acid Release - CDPS Permit No. CO-0001091

Dear Ms. Lenkey:

This letter serves to follow-up the September 3, 1997 verbal notification to you regarding the September 1, 1997 sulfuric acid release at the Public Service Company of Colorado (PSC) Arapahoe Station. The release did not result in the exceedance of any effluent limitations set forth in the Colorado Discharge Permit System (CDPS) Permit No. CO-0001091. A description of this event follows.

On September 1, 1997 at approximately 10:00 a.m., an estimated 200 gallons of sulfuric acid was released from a small hole in the transfer piping associated with the sulfuric acid tank. Upon detection of the release, the acid system was shut down and clean-up was initiated. The acid that was released was confined to the surrounding soil and an enclosed sump that contained approximately 800 gallons of water. The acid released onto the soil was neutralized with soda ash and a contractor was called to neutralize the acid contained in the sump. The pH of the water and acid contained in the sump was 1.59.

Due to the Labor Day holiday, the contractor did not arrive on-site until 4:20 p.m. whereupon the acid and water in the sump was neutralized with soda ash to a pH of 8.6. The neutralized water in the sump (which is recharged with plant circulating water) was pumped into a tanker. The pH of the plant circulating water was 8.3. Approximately 5500 gallons of water and neutralized sulfuric acid was pumped into the tanker suggesting that the sump was continually recharging during pumping. Pumping was discontinued at this point and the neutralized water was emptied into the recently dredged east end of the north ash pond at the site. The north ash pond did not contain any water at this time. Overflow from the north and south ash ponds (if full of water) could travel to the emergency ash pond or the polishing pond leading to discharge point 001, but this is very rare due to the size of the ponds and the continual dredging of the ash ponds as they fill.

There was no flow from discharge point 001 on September 1, 1997. The pH taken twice per shift (three shifts) on September 2, 1997 revealed a pH ranging from 7.2 to 8.1 throughout the day.

Arapahoe Station personnel have indicated that any future disposal of neutralized acid from this sump will be hauled off site and disposed in an industrial landfill. Station personnel will be trained on the off site handling of neutralized acid to ensure that this situation does not occur again.

Please feel free to contact me at 571-7440 with any questions in this regard.

Sincerely,

Eldon Lindt

Eldon Lindt
Team Lead, Air and Water Programs

cc: Plunk/Metcalf - Env. Services
Chuvarsky/Berglund - Arapahoe Station

not reportable quantity

PUBLIC SERVICE COMPANY OF COLORADO
OIL SPILL/CHEMICAL RELEASE REPORT

Please complete form, attach all test results and submit a copy to Environmental Services. Also attach any additional information, drawings or diagrams, including spill boundaries.

Name: John Thompson Signature: John Thompson

Time/date of release: May 5, 1995 13:15

Your location/phone #: Arapahoe Station 937-5462

Time/date of phone report to Environmental Services: 5/5/95 14:00

CO EQUIPMENT #_____

Exact location of release: (please include facility name or address where release occurred) Arapahoe Station, 2601 S. Platte River drive, Denver CO.
River inlet pump Suction pit

Type of material released: lubricating oil Quantity: ½ - ¾ gal.

Weather Conditions: Sunny, mild

What caused the release: (please provide a detailed description of what happened) Juveniles entered the enclosure and apparently emptied the oil can into the pump suction pit from grating above.

Did release get into the soil, air, water or sewers: (if so, please provide a detailed description of where) The oil was contained in the pump suction pit. No oil entered the river.

Any actions taken to contain release: (by whom, when and how) Stephen Evans placed oil absorbent pads in the sump pit imediately after the event. John Thompson placed an oil absorbent boom across the inlet to the river ± 20 minutes after the spill.

Any injuries to employees or public: (list names and injuries) None

Any damage to public or private property: None

Estimated manpower hours for cleanup: 4 hours containment & cleanup

Estimated cost for cleanup: $125.00

Amount of waste generated during cleanup: ≈24 pads & 1 boom

HAZARDOUS WASTE ACCUMULATION AREA INSPECTION LOG

Location: _____

✓ Pass
O Fail

Inspection Item / Date	Barricades	Aisle Space	Drums On Pallets	Storage Times	Warning Signs	Emergency Equipment	Secondary Containm't	Containers Closed	Containers Labelled	Container Condition	No Spills or Leaks	No Haz. W. Out of S/A	COMMENTS	CORRECTIVE ACTION	SIGNATURE (Print Name/ Initial)
4/28/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG Bill Gaybal
5/6/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
5/12/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
5/20/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
5/28/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/2/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/9/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/17/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
6/23/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/2/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/8/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/14/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
7/21/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
8/4/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			BG
8/12/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Needs Swept		BG
8/19/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			RG

HAZARDOUS WASTE ACCUMULATION AREA INSPECTION LOG

Location: Receiving

✔ Pass
O Fail

Inspection Item / Date	Barricades	Aisle Space	Drums On Pallets	Storage Times	Warning Signs	Emergency Equipment	Secondary Containm't	Containers Closed	Containers Labelled	Container Condition	No Spills or Leaks	No Haz. W. Out of S/A	COMMENTS	CORRECTIVE ACTION	SIGNATURE (Print Name/ Initial)
8/25/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Swept Area	BC
9/5/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		~~Sampled~~ Changed Name on Area	DB
9/12/97	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Sampled 9-10-97 Added Chemical Identifiers	DB

Photo 1: Satellite Accumulation Drum
Batteries Inside Drum

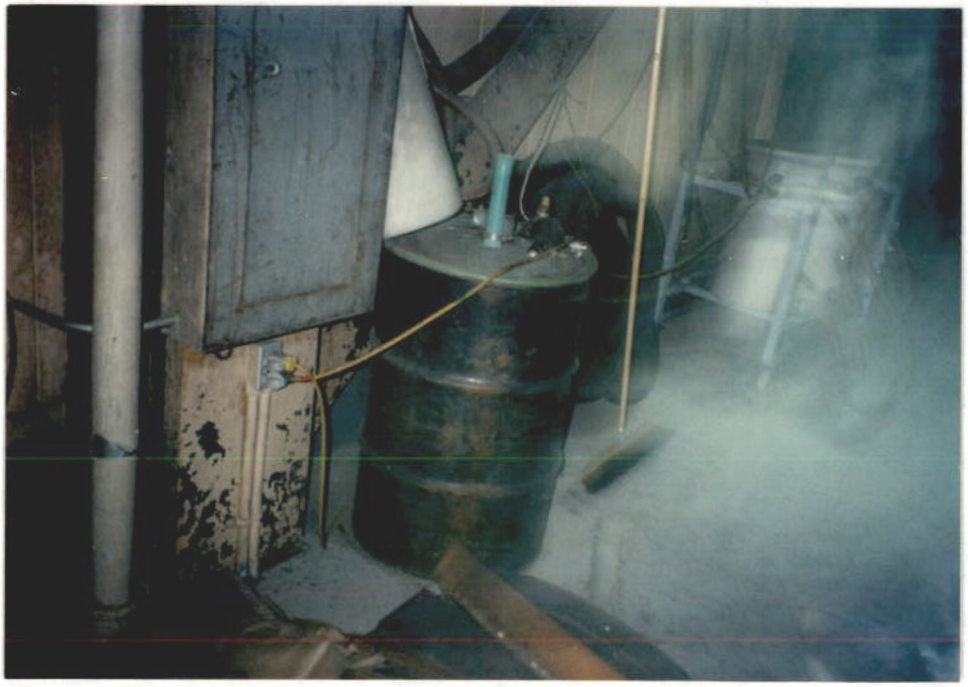

Photo 2: drum where fluorescent bulbs are being crushed.
Black steel drum with green tube on top.

U.S. ENVIRONMENTAL PROTECTION AGENCY (REGION VIII)
999 18th St. Suite 500, Denver, CO 80202-2413

NOTICE OF INSPECTION

PROGRAM

✓ Resource Conservation and Recovery Act (RCRA) Public Law 94-580, as amended.
___ Toxic Substances Control Act (TSCA) Public Law 94-469, as amended.
___ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Public Law 92-516, as amended.

Date	Inspector #	Daily Seq.	Hour IN: 10:05 / OUT: 2:20pm	CMO Fac.	Facility name	EPA I.D. #
9/17/97					Public Service Co. Arapahoe Generating Station	COD980285951

Fac. Func.	Invest. Type	FATES Reason	RCRA: Gen. (2) / Transp. ( ) / TSD ( )	Street
Power Plant				2601 S. Platte River Dr.

Facility Representative(s): Richard Chuvarsky Title: Operations Mgr.
Phone # (303) - (937-5400)

City	State	Zip
Denver	CO	80223

Reason for Inspection: Entry by Consent: (X) Richard Chuvarsky Warrant: ( )
✓ To determine the extent of compliance with the above referenced law, which may require the collection of samples, documents, and/or photographs.
___ Other (Specify) _____
Violations of above referenced law are suspected from information or complaint. Yes ( ) No ( )

Samples, Documents, and/or Photos collected (describe below)	Medium	Date to Lab
1. ~16 photos		
2. 1 sheet – Haz. Waste Activity Rept. (Waste Gen. 1997)		
3. 2 sheets inspection logs		
4. 1 sheet oil spill report		
5. 1 letter, 9/8/97 to CDPHE, re: sulfuric acid spill		
6.		

Samples requested and received by facility: ( ) Yes ( ) No
If yes: ( ) Duplicate. ( ) Split. ( ) Photos (To be received when processed.)

~~This inspection has revealed the following probable violations of EPA laws or regulations:~~ Requests haz. waste determination on used following: (w/i 30 calendar days):
1) 55, black drum, labeled "Citrus Solvent Contaminated with oil"
2) 1 black drum, "CBC Drip #7, UN 1864"
3) Black Drum, Midwest Ind. Supply, No. 092 8405, Road Dust Binder.
Verify SQG Posting / No Violations Pending In Office Review but "Used oil" Labeling.

The facts established by this inspection will be reviewed by personnel in the EPA Regional Office.
A final determination of your facility's compliance with EPA regulations will be made as a result of this review.
The review may reveal additional violations.

Receipt of this Notice of Inspection is acknowledged.
Richard Chuvarsky
(Signature of facility representative)

Signature of Lead Inspector
Linda S. Jacobson
Assisting Inspectors (EPA/Contr./State)

R8EPA Form 3540-2(9-90)

Agency